

possible at the present time to place the specimen in any described genus."

The resemblance to *L. luteolus* is remote and is confined to the character of the teeth. The resemblance to *Quadrula undulata* is more intimate. The undulations of the umbones are of the *Quadrula* type and of course entirely different from the double-looped, fine, wavy undulations of *luteolus*. The teeth are as different from those of *Quadrula* as the undulations of the umbones are different from *Lampsilis*, and consequently the shell cannot belong to either of those genera. There seems to be no possibility that the shell can be a smooth *Q. undulata* nor a hybrid of *L. luteolus* and *Q. undulata* and consequently it requires a new generic name.

LAND-SHELLS FROM ANAFE HILL IN THE HAVANA
PROVINCE, CUBA.

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The Havana province has been so much exploited by naturalists it could hardly be expected to offer any more novelties to a conchologist. On the contrary it appears to yield almost as much in the way of new species as does any other and larger province of the island,—and this, too, despite a denser population, a minimum of forest, a greater relative area under cultivation and an insignificant mountain system. So rich is this state in numbers of species, the many Cuban naturalists who have lived in or near Havana and three generations of visiting collectors who have ransacked the province, have not yet exhausted it of its treasures. Doctor Torre has quite a formidable collection of novelties from Madruga and its neighboring hills, and what is even more remarkable, a new sinistral *Urocoptis* from the golf-course of the country club scarcely more than without the city limits of Havana. Upon my return to Havana after roughing it in the wilds of remote Cuba I always detect a twinkle in Dr. Torre's eye as he matches my hard-won discover-

ies with equally interesting ones from, as it would seem, his very back yard.

The reason for all this is obvious. Havana province is all limestone and the mountain system that once occupied it and developed its rich fauna is now reduced to a number of isolated hills,—large, small and tiny, each standing alone and harboring a little faunula of its own of more or less modified species. One of the larger of these hills is in the northwest corner of the province (near Guanajay) and hardly an hour's ride by trolley from the city of Havana. It is about five hundred feet high, about a mile long, of limestone and well wooded. Its name is "Loma de Anafe,"—the word "loma" meaning *hill*. Barring a few dead shells gathered there recently and sent to Dr. Torre by a friend, I know of no mollusk records from it. Out of curiosity, and in a holiday spirit, I visited it last fall. The morning was given to the south side and the base; the afternoon to the top and to a deep gorge that fairly splits the hill on the north side,—called *La Barranca*. Within the deep gorge, with its precipitous walls and lush tropic vegetation and its generally wild aspect, it is hard to realize that the smoke of Havana is in sight above the eastern horizon.

The following list of land-shells from Anafe show a very typical Havana province assemblage of names with just a suggestion of Pinar del Rio in the *Chondropoma ottonis*. Those with a "B" indicate the Barranca, or gorge, of the north side, while "S" indicates the south front :

Thysanophora boothiana Pfr. (S).

Thysanophora selenina Gld. (S).

Thysanophora saxicola Pfr. (S).

Thysanophora stigmatica Pfr. (B).

Pleurodonte (Thel.) *auricoma* Fer (S).

Cepolis (Jeann.) *multistriata* Desh (S, B).

Cepolis (Cyst.) *cubensis* Pfr. (S).

Liguus fasciatus Müll (western form of the Organ Mts. (S).

Urocoptis cyclostoma anafensis, n. subsp. (B).

Urocoptis poeyana Orb (S).

Microceramus perconicus anafensis, n. f. (S).

- Oleacina o. straminea* Desh. (S, B).
Oleacina solidula Pfr. (S, B).
Oleacina incisa Pfr. (B).
Rectoleacina suturalis Pfr. (S).
Varicella (Pich.) *gracillima* Pfr. (S)
Varicella (Pich.) *acuticostata horrida* Pils. (B).
Helicina adspersa Pfr. (S, B).
Emoda submarginata Gray (B).
Alcadia minima Pfr. (S).
Alcadia rotunda Orb. (var.) (B).
Eutrochatella sloanei Orb. (S, B).
Eutrochatella rupestris Pfr. (S).
Eutrochatella conica Pfr. (S, B).
Proserpina depressa Orb. (B).
Megalomastoma apertum Poey (B).
Chondropoma poeyanum Orb. (S).
Chondropoma (?) n. sp.? (B).
Chondropoma ottonis Pfr. (S, B).
Ctenopoma rugulosum Pfr. (S, B).
Ctenopoma nodulatum Poey (B).

Had I gathered some dirt in proper places several minute species could no doubt have been added.

The subspecies *anafensis* of *Urocoptis cyclostoma* differs from type only in the riblets. The number of these is about the same, but instead of "threadlike" they resemble little knife-blades projecting up from the whorl and with their sharp edges more or less bent forwards in the direction of the shell growth. They are oblique as in the type but describe a double curve from suture to suture.

The form *anafensis* of Pilsbry's *Microceramus perconicus* is smaller, with narrower, more convex whorls, and somewhat flatter base.

The *Chondropoma* left without a specific name is a puzzle. It belongs to the *peoyanum-pfeifferianum-pictum* complex with certain peculiar characters of each, the facies of all, but is not any one of the lot—or all of them. The reflected peristome is the trouble. I dare not name it.